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## ABSTRACT

In this study, the authors deliberately set out to modify the attitudes of new students toward drugs in a conservative direction by inducing cognitive dissonance. The method used was a pretest-posttest design in which the experimental group of students were to fill out a value-preference inventory that yielded a score, sorting the students into 2 groups: those preferring mediated experiences and those preferring direct experiences. Following the pretest, the group leader pointed out to all of the students that those preferring direct experiences could not also favor drugs because drugs themselves are mediators. A discussion of this theory followed and more than 80% of the students agreed. The results show that students who preferred direct experiences and who were made to feel dissonant about holding liberal drug views, showed considerably more conservatism in their attitudes toward drugs than similar students who had not been exposed to the experimental treatment. On the other hand, students who preferred mediated experiences and who were thus not made to feel dissonant during the experimental treatment, presented essentially the same attitudinal posture as similar students in the control group. (HS)

EFFECTING DRUG ATTITUDE CHANGE IN COLLEGE STUDENTS  
VIA  
INDUCED COGNITIVE DISSONANCE

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ABSTRACT

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The presence of a significant interaction ( $p < .03$ ) indicated that the cognitive dissonance treatment applied to a sample of 34 freshmen orientation students was differentially effective: students who preferred direct experiences and who were made to feel dissonant about holding liberal drug views, showed considerably more conservatism in their attitudes toward drugs than similar students who had not yet been exposed to the experimental treatment. Students who preferred mediated experiences and who were thus not made to feel dissonant during the experimental treatment, presented essentially the same attitudinal posture as similar students in the control group.

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Effecting Drug Attitude Change in College Students  
via  
Induced Cognitive Dissonance

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Forums on drug abuse are becoming increasingly popular components of Student Affairs Programs on college campuses across the nation. Nearly all are designed to disseminate information about the legal pharmaceutical, and physiological aspects of drug use. Most seem based on a covert assumption that students armed with this new cognitive input will wage a never ending battle against the perils of peer and personal addiction. Yet in spite of the plethora of polemics, few systematic evaluations of drug education have ever been attempted (Warner, 1971). The scant evidence that does exist, suggests negative, or at best, null effects (Swisher et al, 1971).

Rationale

A relatively simple attitude-change technique based on earlier work by Festinger (1957) and his associates, later refined and applied by Rokeach (1971), was explored in a natural setting. Specifically, during orientation procedures at a large state university, the authors deliberately set out to modify the attitudes of new students toward drugs in a conservative direction by inducing cognitive dissonance.

According to Festinger (1957), dissonance between two cognitions is psychologically distressing. This relationship exists when ".....the

obverse of one element would follow from the other" (p. 13). Individuals experiencing such a disparity are motivated to seek a state of consonance, which can be achieved by making one's cognitive, affective, and motor behaviors consistent with each other.

Rokeach (1971) has observed that dissonance can be induced by exposing "a person to information designed to make him consciously aware of states of inconsistency that exist chronically within his own value-attitude system below the level of his conscious awareness" (p. 453). In practical and applicable terms all of this suggests that if a counselor or personnel worker can identify an unknown or at least un verbalized value that a given student has which is inconsistent with the holding of a liberal (pro) drug attitude, following the presentation of such information, the student's attitude (and probably his behavior) will shift in a more conservative direction. Theoretically, either the value or the attitude can change, however since "value are determinants of attitudes as well as behavior" (Rokeach, 1971, p. 453), the latter occurrence would be expected.

### Methodology

#### Sample

The 34 male and female undergraduates (predominantly new freshmen) who attended a seminar on drug problems during orientation week at The Pennsylvania State University were randomly assigned to an experimental and a control group.

#### Measures and Materials

The control and experimental groups were pre- and posttested

respectively on the 14 item attitude segment of the Drug Education Evaluation Scales developed by Swisher and Warner (1971). Kuder-Richardson reliability coefficients on this instrument range from .75 to .84.

A value-preference inventory of the authors own making was also employed. This instrument had a dual function: in the first place, its 18 items yielded a score which sorted the sample into two groups, those preferring direct experiences (e.g., "play your favorite sport"), and those preferring mediated experiences (e.g., "watch your favorite sport on T.V."). The instrument also served as a primary component of the experimental treatment. Upon receiving personal value information students who prefer direct experiences could be expected to become dissonant and thus more conservative in their views on drugs. Since drugs are really another way of mediating experience, attitudes of students in the latter camp ought to remain unaffected (no dissonance would be induced in such S's).

#### Procedure

After the control group was pretested on the attitude measure, all students were instructed to complete a questionnaire which was introduced as an "activities preference scale." This instrument was self-scored; each student learned of his own preference for direct or mediated experiences.

Following a brief summary about the debatable nature of drug effects (e.g., LSD and chromosomal damage), the group leader stated: "No matter how you resolve these issues, the best that can be said of drugs is that they are mediators of experience. Therefore, if you favor drug use but also prefer direct experiences you are being inconsistent."

The students were then asked for their reactions to this point of view. Those who agreed were verbally reinforced (i.e., attention, clarification, and encouragement). A request by the group leader for written

opinions (which later indicated more that 80% of the S's agreeing), was followed by posttesting of the experimental group on the attitude scale.

### Design and Analysis

This experiment made use of the "separate-sample pretest-posttest design" described by Campbell and Stanley (1967). Such a design (see Figure 1) is particularly appropriate for studies taking place in the field or for those involving attitude change, since the pretest does not upset the "natural order," nor does it influence the experimental treatment. In view of the one and one-half hour time span between pre- and posttest, rival hypotheses of history and maturation cannot be considered germane; furthermore, the generalization potential of this particular design exceeds even that of the "true" experiment.

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Insert Figure 1 about here  
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A fixed effects two-way analysis of variance was employed in order to examine differences in drug attitudes arising from the experimental treatment or the value preference of the students (implying high or nil dissonance), or the interaction between these two factors.

### Results

The presence of a significant interaction (depicted in Table 1) indicates that the experimental treatment was differentially effective. Figure 2 graphically portrays the relationship between treatment and value preference.

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Insert Table 1 about here  
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Students who preferred direct experiences and who were made to feel dissonant about holding liberal drug views, showed considerably more conservatism in their attitudes toward drugs than similar students who had not yet been exposed to the experimental treatment. On the other hand, students who preferred mediated experiences and who were thus not made to feel dissonant during the experimental treatment, presented essentially the same attitudinal posture as similar students in the control group. (Slight directionality toward liberalism in the latter instance should be noted but interpreted with extreme caution).

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Insert Figure 2 about here  
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### Discussion

Although the experimental treatment worked as expected, it is important to note that the sample in this study was small (N=34) and limited to new freshmen who selected this particular program from several others available--including a forum on sex. Such motivation should not go unrecognized.

One of the most promising implications of this project is that the changing of drug attitudes can be accomplished through a simple, but potent technique. The authors are currently planning to develop and compare the impact of similar dissonance inducing procedures on a variety

of student populations. Also under consideration are the construction of follow-up designs involving unobtrusive behavioral measures. Although the changing of attitudes implies the modification of behavior, a demonstration of this principle in the area of drug abuse would indeed be valuable.



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TABLE 1

## ANALYSIS OF VARIANCE SUMMARY TABLE

Source	SS	df	MS	F	p-level
Treatment	92.24	1	92.24	0.850	0.364
Value Preference	100.06	1	100.06	0.922	0.345
Interaction	513.96	1	513.96	4.736	0.038*
Error	3255.86	30	108.53		

\* = significant

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R O<sub>1</sub> (X)  
R X O<sub>2</sub>

Legend: R = Random assignment  
O<sub>1</sub> = Pretest  
O<sub>2</sub> = Posttest  
X = Experimental treatment  
(X) = Experimental treatment not considered

Figure 1. Pictorial representation of the experimental design.

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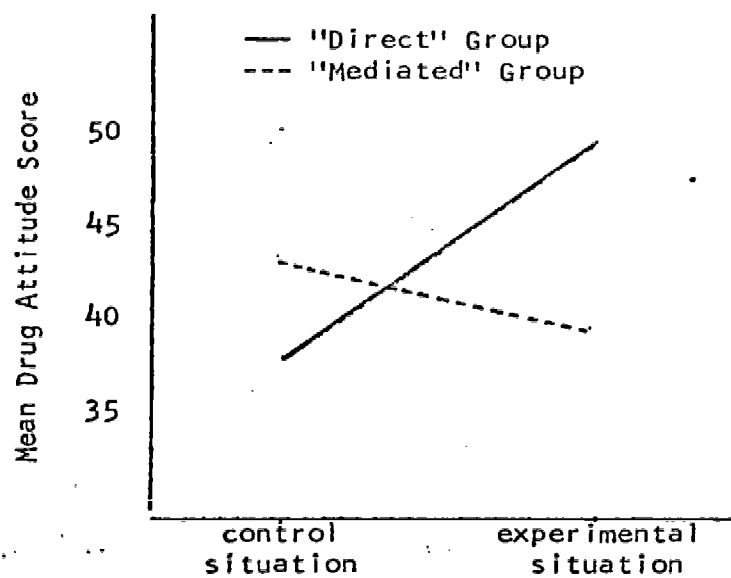


Figure 2. Interactive effect of experimental design factors.